

FIG. 1

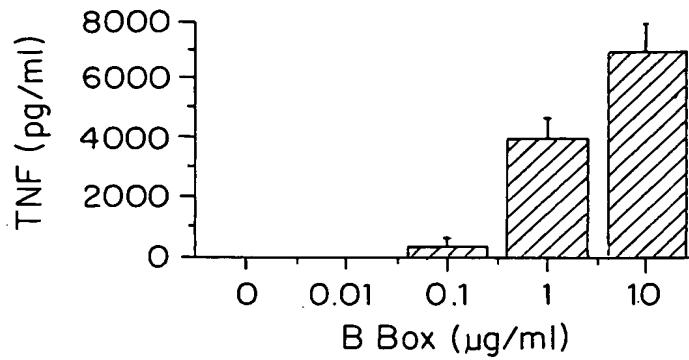


FIG. 2A

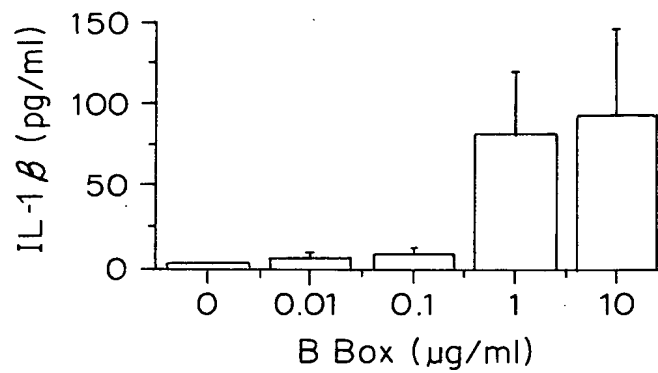


FIG. 2B

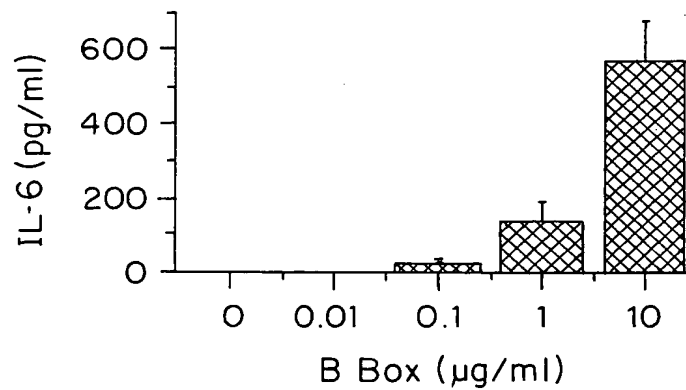


FIG. 2C

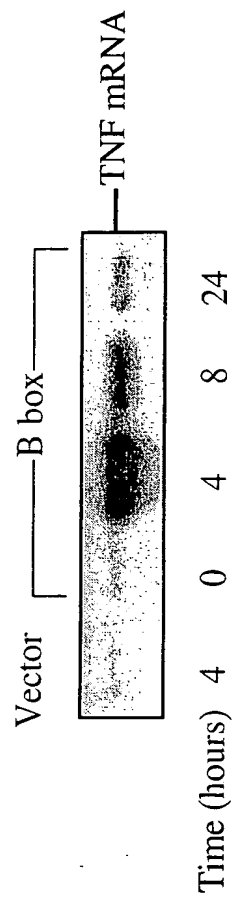


FIG. 2D

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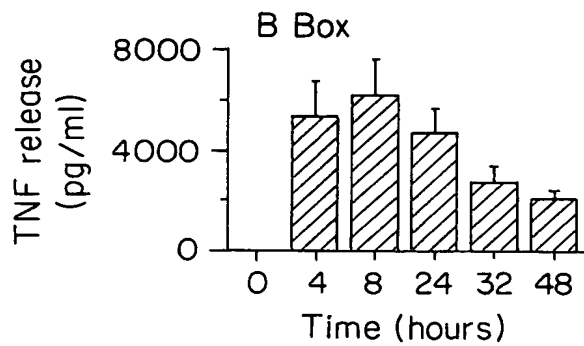


FIG. 2E

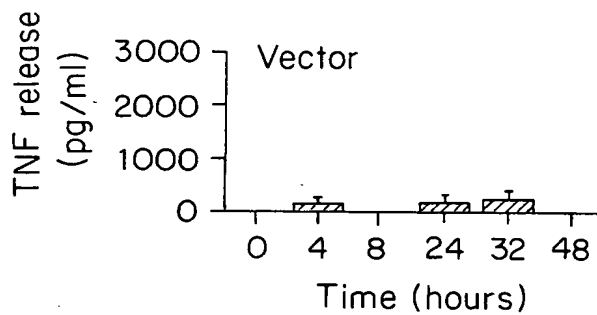


FIG. 2F

B box mutants	TNF release (pg/ml)
B box: 74 amino acids	5675±575
1-20	2100±756
16-35	100±10
30-49	120±75
45-64	100±36
60-74	100±20

FIG. 3

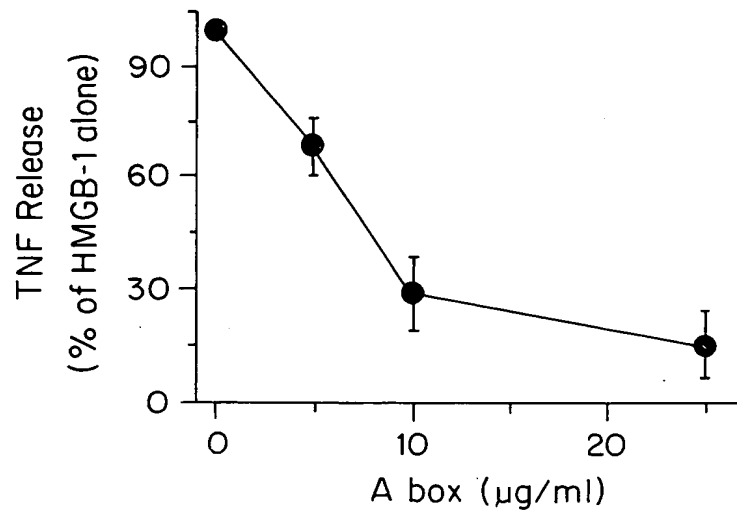


FIG. 4A

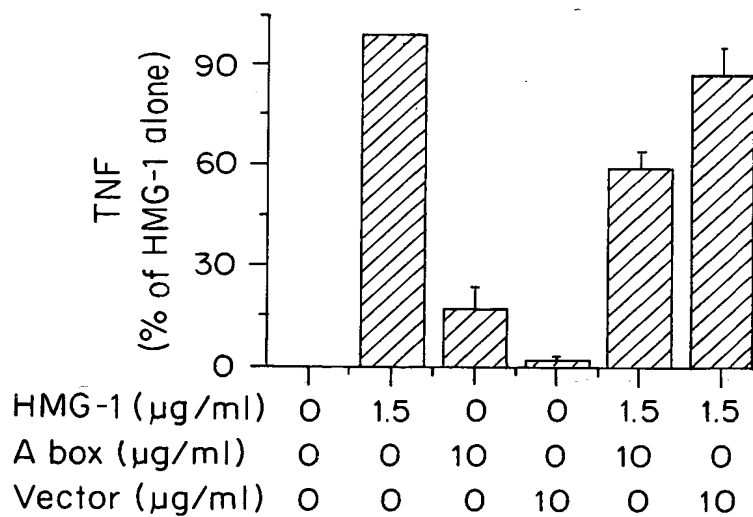


FIG. 4B

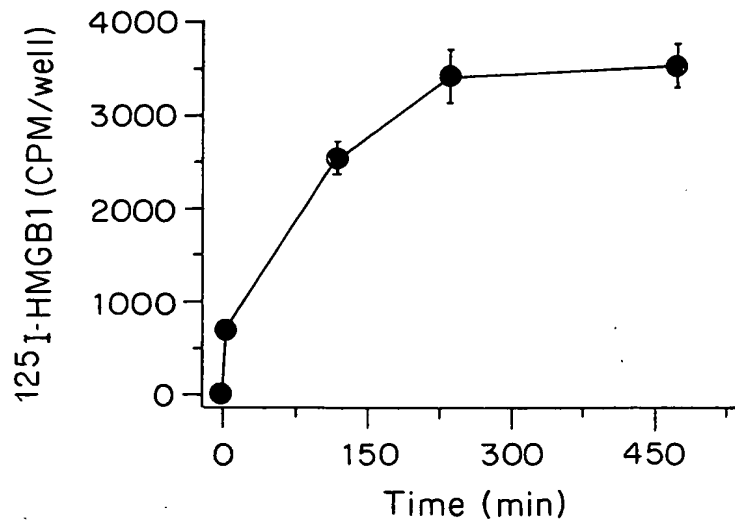


FIG. 5A

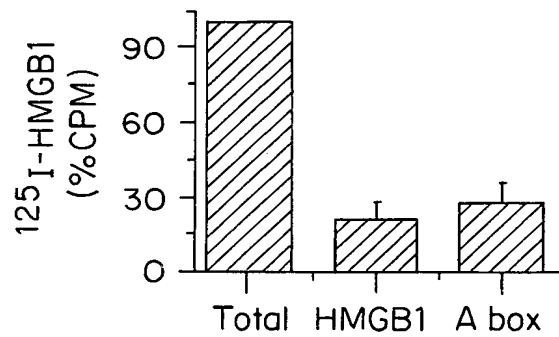


FIG. 5B

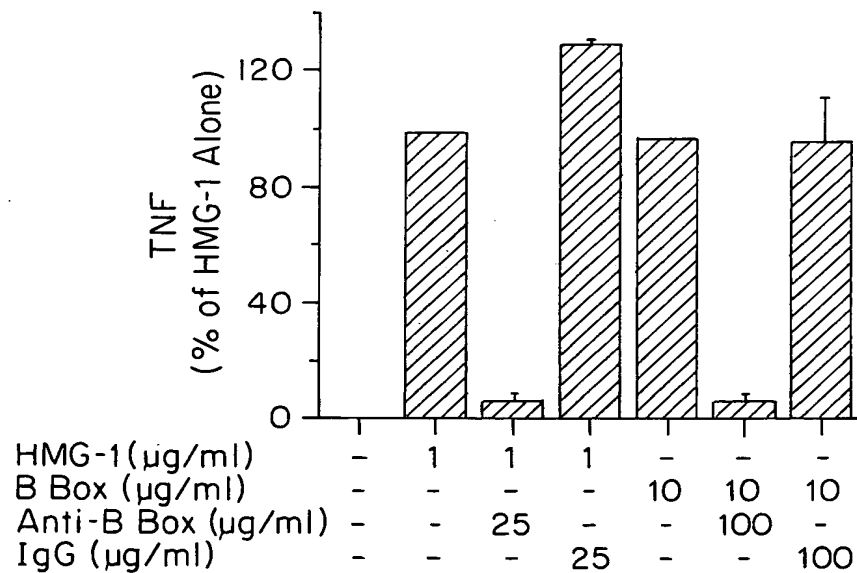


FIG. 6

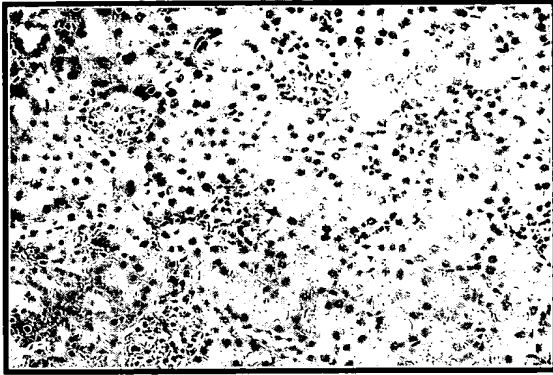


FIG. 7A

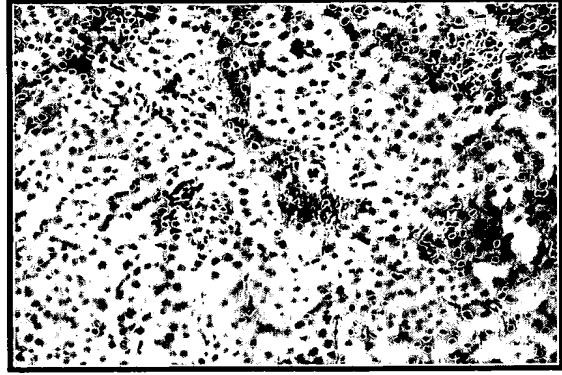


FIG. 7B

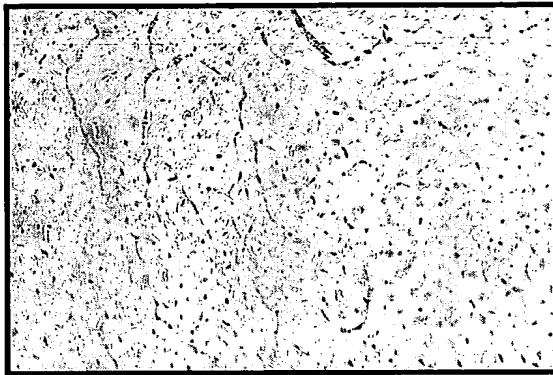


FIG. 7C

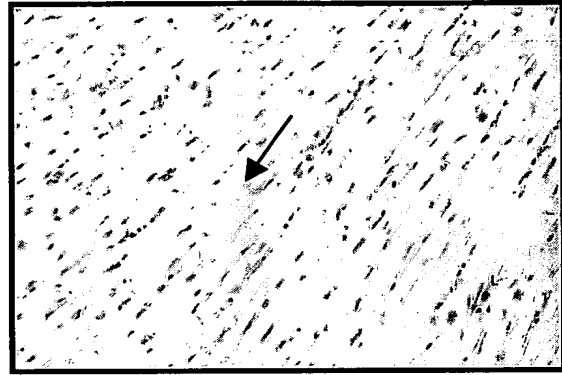


FIG. 7D



FIG. 7E

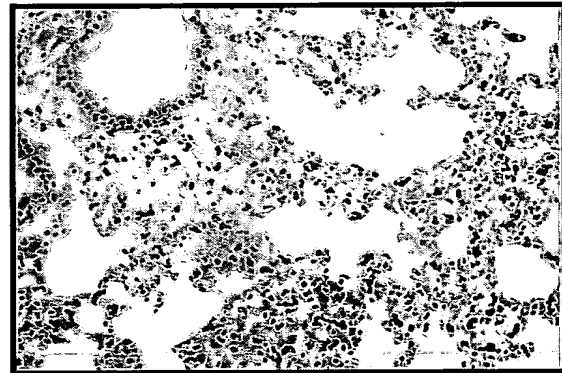


FIG. 7F

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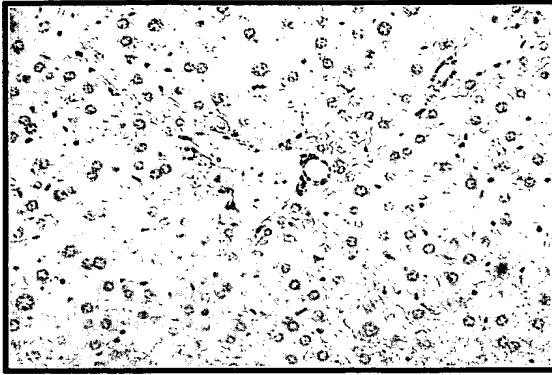


FIG. 7G

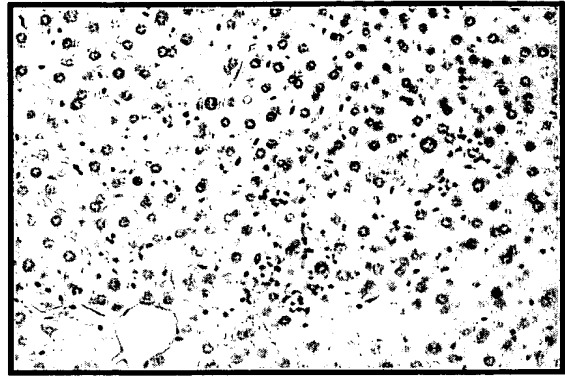


FIG. 7H

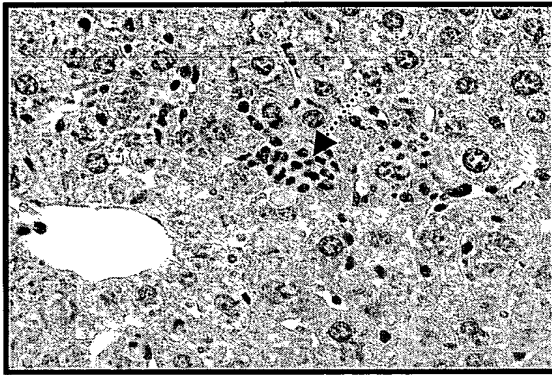


FIG. 7I

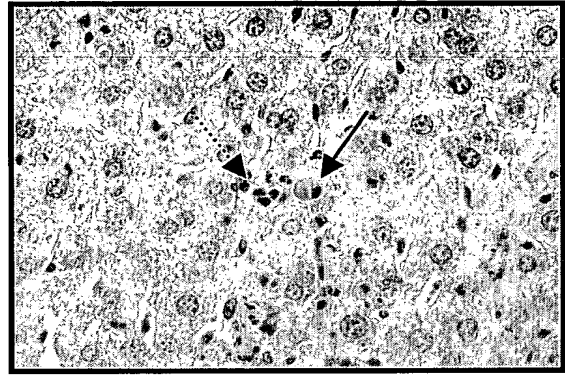


FIG. 7J

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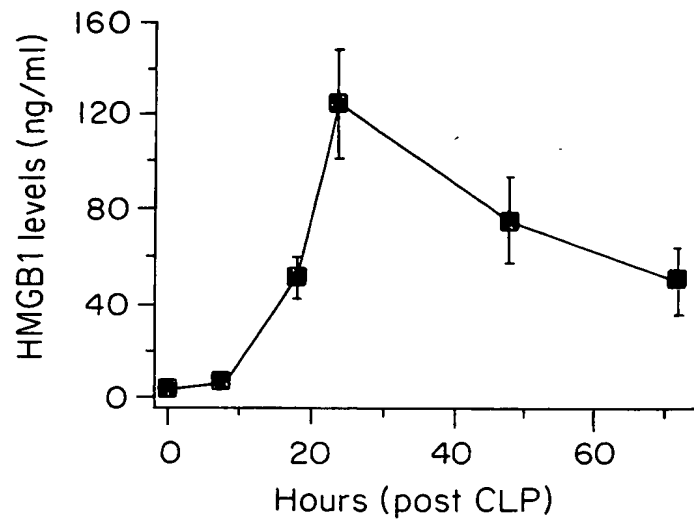


FIG. 8

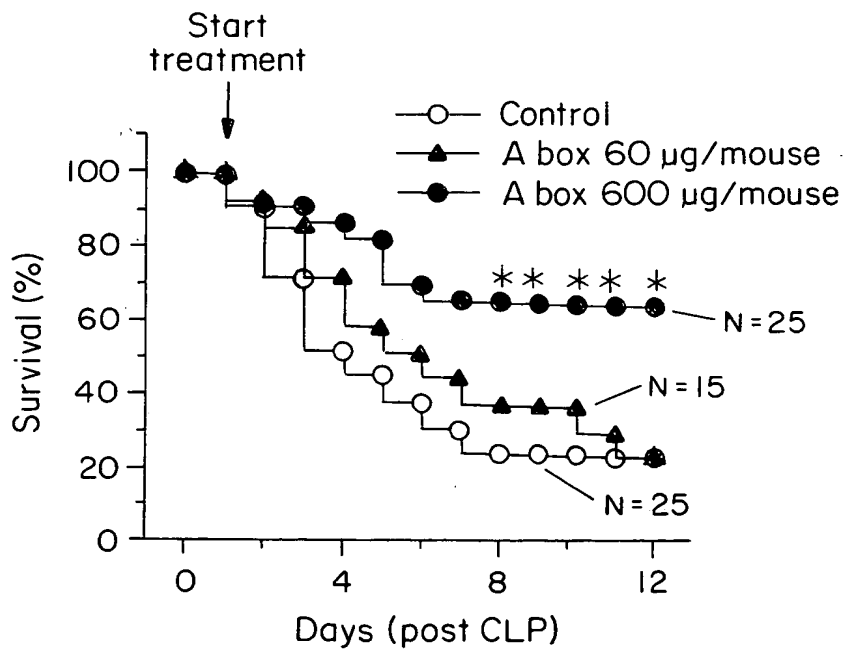


FIG. 9

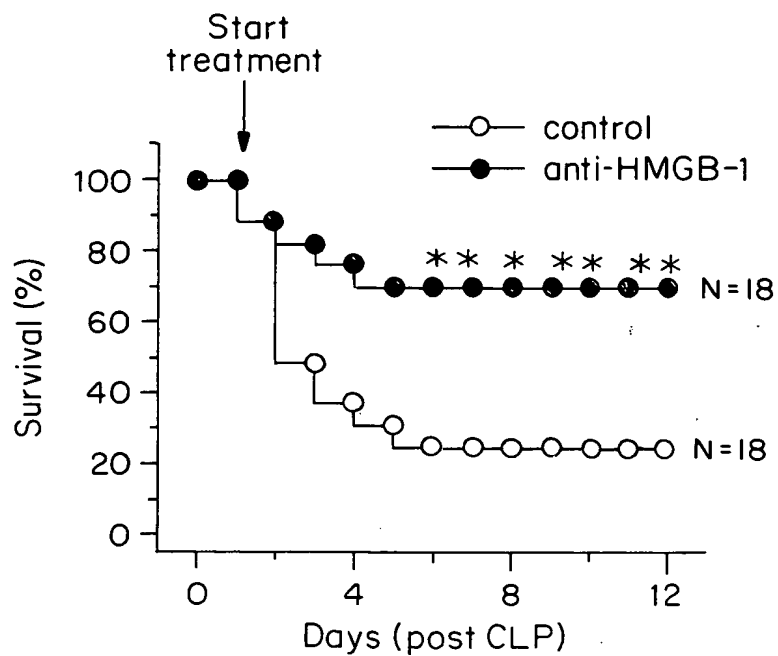


FIG. 10A

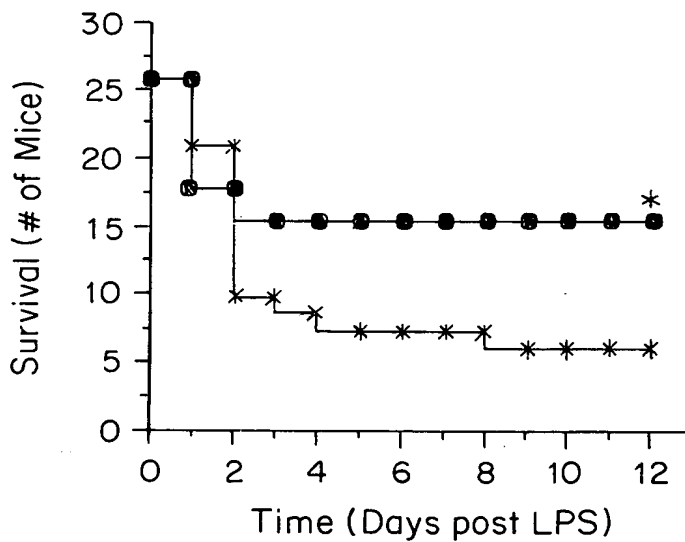


FIG. 10B

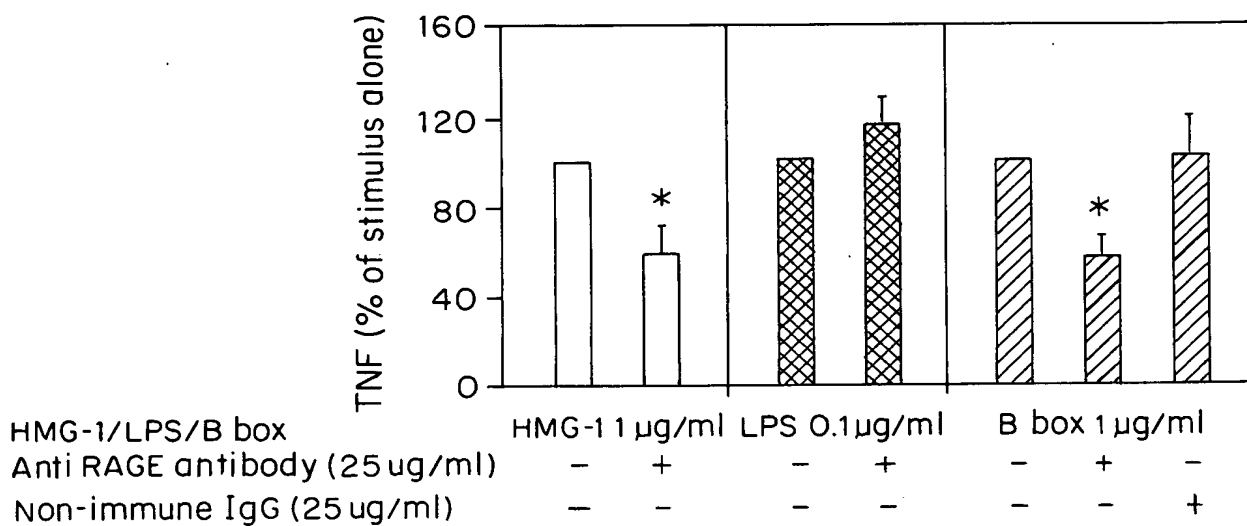


FIG. IIA

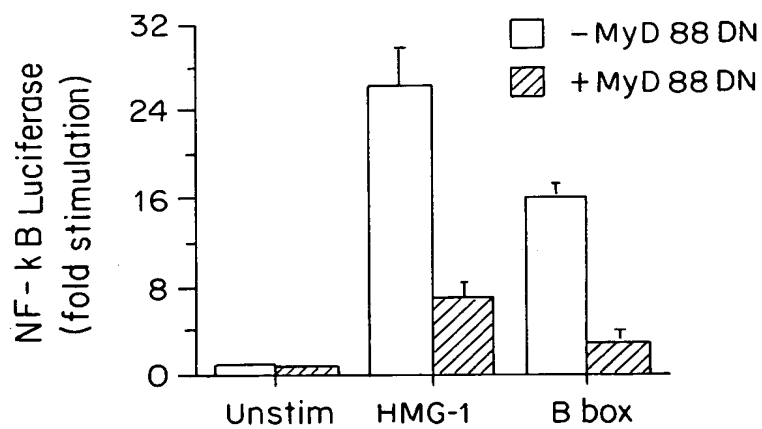


FIG. IIB

FIG. 12A

SEQ ID NO:1 - Human HMG1 amino acid sequence

1 mgkgdppkpr gkmssyaffv qcreehkkk hpdasvnfse fskkcserwk tmsakekgkf
61 edmakadkar yeremktyip pkgetkkkfk dpnapkrpps afflfcseyr pkikgehppl
121 sigdvakklg emwnntaadd kqpyekkaak lkekyekdia ayrakgkpa akkgvvkaek
181 skkkkeeed eedeedeeee edeededeee dddde

FIG. 12B

SEQ ID NO:2 - Mouse and Rat HMG1 amino acid sequence

1 mgkgdppkpr gkmssyaffv qcreehkkk hpdasvnfse fskkcserwk tmsakekgkf
61 edmakadkar yeremktyip pkgetkkkfk dpnapkrpps afflfcseyr pkikgehppl
121 sigdvakklg emwnntaadd kqpyekkaak lkekyekdia ayrakgkpa akkgvvkaek
181 skkkkeeedd eedeedeeee eeededeeee dddde

FIG. 12C

SEQ ID NO:3 - HUMAN HMG2 amino acid sequence

1 mgkgdppkpr gkmssyaffv qcreehkkk hpdssvnfae fskkcserwk tmsakekskf
61 edmaksdkar ydremknyvp pkgdkkgkkk dpnapkrpps afflfcsehr pkiksehppl
121 sigdtakklg emwseqsakd kpyeqkaak lkekyekdia ayrakgksea gkkgpgrptg
181 skkknepede eeeeeeded eeededede

FIG. 12D

SEQ ID NO:4 - Human, mouse and rat HMG1 A box protein sequence

1 pdasvnfsef skkcserwkt msakekgkfe dmakadkary eremktyipp kget

FIG. 12E

SEQ ID NO:5 - Human, mouse and rat HMG1 B box protein sequence

1 napkrppsaf flfcseyrpk ikgehpplsi gdvakklgem wnntaaddkq pyekkaaklk
61 ekyekdiaa

FIG. 12F

SEQ ID NO:6 - forward PCR primer for human HMG1

gatgggcaaaggagatcctaag.

FIG. 12G

SEQ ID NO:7 - reverse PCR primer for human HMG1

gcggccgcttattcatcatcatcttc

FIG. 12H

SEQ ID NO:8 - forward PCR primer for -C mutant of human HMG1

gatgggcaaaggagatcctaag

FIG. 12I

SEQ ID NO:9 - reverse PCR primer for -C mutant of human HMG1
gcggccgctcacttgctttttcagccttgac

FIG. 12J

SEQ ID NO:10 - forward PCR primer for A+B boxes mutant of human HMG1
gagcataagaagaagcaccca

FIG. 12K

SEQ ID NO:11 - reverse PCR primer for A+B boxes mutant of human HMG1
gcggccgc tcacttgctttttcagccttgac

FIG. 12L

SEQ ID NO:12 - forward PCR primer for B box mutant of human HMG1
aagttcaaggatcccaatgcaaag

FIG. 12M

SEQ ID NO:13 - reverse PCR primer for B box mutant of human HMG1
gcggccgctcaatatgcagctatatccttttc

FIG. 12N

SEQ ID NO:14 - forward PCR primer for N'+A box mutant of human HMG1
gatgggcaaaggagatcctaag

FIG. 12O

SEQ ID NO:15 - reverse PCR primer for N'+A box mutant of human HMG1
tcactttttgtctccccttgagg

1 mgkgdppkpr gkmssyaffv qcreehkkk hpdasvnfse fskkcserwk tmsakekgkf *rat # P07155*
1 mgkgdppkpr gkmssyaffv qcreehkkk hpdasvnfse fskkcserwk tmsakekgkf *mouse #AAA20508*
1 mgkgdppkpt gkmssyaffv qcreehkkk hpdasvnfse fskkcserwk tmsakekgkf *human #AAA64970*

A box

61 edmakadkar yeremktyip pkgetkkkfk dnapkrpps afflcseyr pkikgehppl *rat*
61 edmakadkar yeremktyip pkgetkkkfk dnapkrpps afflcseyr pkikgehppl *mouse*
61 edmakadkar yeremktyip pkgetkkkfk dnapkrpps afflcseyr pkikgehppl *human*

B box

121 sigdvakklg emwnntaadd kqpyekkaak lkeyekdia ayrakgkpa akkgvvkaek *rat*
121 sigdvakklg emwnntaadd kqpyekkaak lkeyekdia ayrakgkpa akkgvvkaek *mouse*
121 sigdvakklg emwnntaadd kqpyekkaak lkeyekdia ayrakgkpa akkgvvkaek *human*

181 skkkkeeeedd eedeedeede eedeede deee dddde *rat*
181 skkkkeeeedd eedeedeede eedeede deee dddde *mouse*
181 skkkkeeeedd eedeedeede eedeedeede dddde *human*

FIG. 13

FIG. 14A

NG_000897 DNA (bases 150-797)

ATGGGCAAAG	GAGATCCTAA	GAAGCCGACA	GGCAAAATGT	CATCATATGC
ATTTTTTTGTG	CAAACCTTGTC	GGGAGGAGCA	TAAGAAGAAG	CACCCAGATG
CTTCAGTCAA	CTTCTCAGAG	TTTTCTAAGA	AGTGCTCAGA	GAGGTGGAAG
ACCATGTCTG	CTAAAGAGAA	AGGAAAATTT	GAAGATATGG	CAAAGGCGGA
CAAGGCCCGT	TATGAAAGAG	AAATGAAAAC	CTATATCCCT	CCCAAAGGGG
AGACAAAAAA	GAAGTTCAAG	GATCCCAATG	CACCCAAGAG	GCTTCCTTCG
GCCTTCTTCC	TCTTCTGCTC	TGAGTATCGC	CCAAAAATCA	AAGGAGAACA
TCCTGGCCTG	TCCATTGGTG	ATGTTGCGAA	GAAACTGGGA	GAGATGTGGA
ATAACACTGC	TGCAGATGAC	AAGCAGCCTT	ATGAAAAGAA	GGCTGCGAAG
CTGAAGGAAA	AATACGAAAA	GGATATAGCT	GCATATCGAG	CTAAAGGAAA
GCCTGATGCA	GCAAAAAAGG	GAGTTGTCAA	GGCTGAAAAA	AGCAAGAAAA
AGAAGGAAGA	GGAGGAAGAT	GAGGAAGATG	AAGAGGATGA	GGAGGAGGAG
GAAGATGAAG	AAGATGAAGA	AGATGAAGAA	GAAGATGATG	ATGATGAA

FIG. 14B

NG_000897 Protein

MGKGDPPKPT	GKMSSYAFFV	QTCREEHKKK	HPDASVNFSE	FSKKCSERWK
TMSAKEKGKF	EDMAKADKAR	YEREMKTYIP	PKGETKKKFK	DPNAPKRLPS
AFFLFCSEYR	PKIKGEHPGL	SIGDVAKKLG	EMWNNTAADD	KQPYEKKAAC
LKEKYEKDIA	AYRAKGKPGA	AKKGVVKAEK	SKKKKEEEED	EDEEDEEEED
EDEEDEEEDE	EDDDDE			

FIG. 14C

AF076674 DNA (bases 1-633)

ATGGGCAAAG	GAGATCCTAA	GAAGCCGAGA	GGCAAAATGT	CATCATATGC
ATTTTTTTGTG	CAAACCTTGTC	GGGAGGAGCA	TAAGAAGAAG	CACTCAGATG
CTTCAGTCAA	CTTCTCAGAG	TTTTCTAACA	AGTGCTCAGA	GAGGTGGAAG
ACCATGTCTG	CTAAAGAGAA	AGGAAAATTT	GAGGATATGG	CAAAGGCGGA
CAAGACCCAT	TATGAAAGAC	AAATGAAAAC	CTATATCCCT	CCCAAAGGGG
AGACAAAAAA	GAAGTTCAAG	GATCCCAATG	CACCCAAGAG	GCCTCCTTCG
GCCTTCTTCC	TGTTCTGCTC	TGAGTATCAC	CCAAAAATCA	AAGGAGAACA
TCCTGGCCTG	TCCATTGGTG	ATGTTGCGAA	GAAACTGGGA	GAGATGTGGA
ATAACACTGC	TGCAGATGAC	AAGCAGCCTG	GTGAAAAGAA	GGCTGCGAAG
CTGAAGGAAA	AATACGAAAA	GGATATTGCT	GCATATCAAG	CTAAAGGAAA
GCCTGAGGCA	GCAAAAAAGG	GAGTTGTCAA	AGCTGAAAAA	AGCAAGAAAA
AGAAGGAAGA	GGAGGAAGAT	GAGGAAGATG	AAGAGGATGA	GGAGGAGGAA
GATGAAGAAG	ATGAAGAAGA	TGATGATGAT	GAA	

FIG. 14D

AF076674 Protein

MGKGDPPKPR	GKMSSYAFFV	QTCREEHKKK	HSDASVNFSE	FSNKCSEKWK
TMSAKEKGKF	EDMAKADKTH	YERQMKTYIP	PKGETKKKFK	DPNAPKRPPS
AFFLFCSEYH	PKIKGEHPGL	SIGDVAKKLG	EMWNNTAADD	KQPGKEKKAAC
LKEKYEKDIA	AYQAKGKPEA	AKKGVVKAEK	SKKKKEEEED	EDEEDEEEED
DEEDEEDDDD	E			

FIG. 14E

AF076676 DNA (bases 1-564)

ATGGGCAAAG	GAGACCCTAA	GAAGCCGAGA	GGCAAAATGT	CATCATATGC
ATTTTTTTGTG	CAAACCTTGTC	GGGAGGAGTG	TAAGAAGAAG	CACCCAGATG
CTTCAGTCAA	CTTCTCAGAG	TTTTCTAAGA	AGTGCTCAGA	GAGGTGGAAG
GCCATGTCTG	CTAAAGATAA	AGGAAAATTT	GAAGATATGG	CAAAGGTGGA
CAAAGACCGT	TATGAAAGAG	AAATGAAAAC	CTATATCCCT	CCTAAAGGGG
AGACAAAAAA	GAAGTTCGAG	GATTCCAATG	CACCCAAGAG	GCCTCCTTCG
GCCTTTTTTG	TGTTCTGCTC	TGAGTATTGC	CCAAAAATCA	AAGGAGAGCA
TCCTGGCCTG	CCTATTAGCG	ATGTTGCAAA	GAAACTGGTA	GAGATGTGGA
ATAACACTTT	TGCAGATGAC	AAGCAGCTTT	GTGAAAAGAA	GGCTGCAAAG
CTGAAGGAAA	AATACAAAAA	GGATACAGCT	ACATATCGAG	CTAAAGGAAA
GCCTGATGCA	GCAAAAAAGG	GAGTTGTCAA	GGCTGAAAAA	AGCAAGAAAA
AGAAGGAAGA	GGAG			

FIG. 14F

AF076676 Protein

MGKGDPPKKPR	GKMSSYAFFV	QTCREECKKK	HPDASVNFSE	FSKKCSERWK
AMSAKDKGKF	EDMAKVDKDR	YEREMKTYIP	PKGETKKKFE	DSNAPKRPPS
AFLLCSEYC	PKIKGEHPGL	PISDVAKKLV	EMWNNTFADD	KQLCEKKAAC
LKEYKKKDTA	TYRAKGKPD	AKKGVVKAEC	SKKKKEEE	

FIG. 14G

AC010149 DNA (bases 75503-76117)

ATGGACAAAG	CAGATCCTAA	GAAGCTGAGA	GGTGAAATGT	TATCATATGC
ATTTTTTTGTG	CAAACCTTGTC	AGGAGGAGCA	TAAGAAGAAG	AACCCAGATG
CTTCAGTCAA	GTTCTCAGAG	TTTTTAAAGA	AGTGCTCAGA	GACATGGAAG
ACCATTTTTTG	CTAAAGAGAA	AGGAAAATTT	GAAGATATGG	CAAAGGCGGA
CAAGGCCCAT	TATGAAAGAG	AAATGAAAAC	CTATATCCCT	CCTAAAGGGG
AGAAAAAAA	GAAGTTCAAG	GATCCCAATG	CACCCAAGAG	GCCTCCTTTG
GCCTTTTTTCC	TGTTCTGCTC	TGAGTATCGC	CCAAAAATCA	AAGGAGAAC
TCCTGGCCTG	TCCATTGATG	ATGTTGTGAA	GAAACTGGCA	GGGATGTGGA
ATAACACCGC	TGCAGCTGAC	AAGCAGTTTT	ATGAAAAGAA	GGCTGCAAAG
CTGAAGGAAA	AATACAAAAA	GGATATTGCT	GCATATCGAG	CTAAAGGAAA
GCCTAATTCA	GCAAAAAAGA	GAGTTGTCAA	GGCTGAAAAA	AGCAAGAAAA
AGAAGGAAGA	GGAAGAAGAT	GAAGAGGATG	AACAAGAGGA	GGAAAATGAA
GAAGATGATG	ATAAA			

FIG. 14H

AC010149 Protein

MDKADPPKKLR	GEMLSYAFFV	QTCQEEHKKK	NPDASVKFSE	FLKKCSETWK
TIFAKEKGKF	EDMAKADKAH	YEREMKTYIP	PKGEKKKKFK	DPNAPKRPL
AFLLCSEYR	PKIKGEHPGL	SIDVVVKLLA	GMWNNTAAAD	KQFYEKKAAC
LKEYKKKDIA	AYRAKGKPN	AKKRVVKAEC	SKKKKEEEE	EEDEQEEENE
EDDDK				

FIG. 14I

AF165168 DNA (bases 729-968)

```
ATGGGCAAAG GAGATCCTAA GAAGCCGAGA GGCAAAATGT CATCATGTGC
ATTTTTTTGTG CAAACTTGTT GGGAGGAGCA TAAGAAGCAG TACCCAGATG
CTTCAATCAA CTTCTCAGAG TTTTCTCAGA AGTGCCCAGA GACGTGGAAG
ACCACGATTG CTAAAGAGAA AGGAAAATTT GAAGATATGC CAAAGGCAGA
CAAGGCCCAT TATGAAAGAG AAATGAAAAC CTATATACCC
```

FIG. 14J

AF165168 Protein

```
MGKGDPPKKPR GKMSSCAFFV QTCWEEHKKQ YPDASINFSE FSQKCPETWK
TTIAKEKGKF EDMPKADKAH YEREMKTYIP
```

FIG. 14K

XM_063129 DNA (bases 319-558)

```
AAACAGAGAG GCAAAATGCC ATCGTATGTA TTTTGTGTGC AACTTGTCC
GGAGGAGCGT AAGAAGAAAC ACCCAGATGC TTCAGTCAAC TTCTCAGAGT
TTTCTAAGAA GTGCTTAGTG AGGGGGAAGA CCATGTCTGC TAAAGAGAAA
GGACAATTTG AAGCTATGGC AAGGGCAGAC AAGGCCCGTT ACGAAAGAGA
AATGAAAACA TATATCCCTC CTAAAGGGGA GACAAAAAAA
```

FIG. 14L

XM_063129 Protein

```
KQRGKMPSYV FCVQTCPEER KKKHPDASVN FSEFSKKCLV RGKTMSAKEK
QQFEAMARAD KARYEREMKT YIPPKGETKK
```

FIG. 14M

XM_066789 DNA (bases 1-258)

```
ATGGGCAAAA GAGACCCTAA GCAGCCAAGA GGCAAAATGT CATCATATGC
ATTTTTTTGTG CAAACTGCTC AGGAGGAGCA CAAGAAGAAA CAACTAGATG
CTTCAGTCAG TTTCTCAGAG TTTTCTAAGA ACTGCTCAGA GAGGTGGAAG
ACCATGTCTG TTAAAGAGAA AGGAAAATTT GAAGACATGG CAAAGGCAGA
CAAGGCCTGT TATGAAAGAG AAATGAAAAT ATATCCCTAC TTAAAGGGGA
GACAAAAA
```

FIG. 14N

XM_066789 Protein

```
MGKRDPPKQPR GKMSYAFFV QTAQEEHKKK QLDASVSFSE FSKNCSEKWK
TMSVKEKGKF EDMAKADKAC YEREMKIYPY LKGRQK
```

FIG. 14O

AF165167 DNA (bases 456-666)

ATGGGCAAAG GAGACCCTAA GAAGCCAAGA GAGAAAATGC CATCATATGC
ATTTTTTGTG CAAACTTGTA GGGAGGCACA TAAGAACAAA CATCCAGATG
CTTCAGTCAA CTCCTCAGAG TTTTCTAAGA AGTGCTCAGA GAGGTGGAAG
ACCATGCCTA CTAAACAGAA AGGAAAATTC GAAGATATGG CAAAGGCAGA
CAGGGCCCAT A

FIG. 14P

AF165167 Protein

MGKGDPPKPR EKMPSYAFFV QTCREAHKNK HPDASVNSSE FSKKCSERWK
TMPTKQKGKF EDMAKADRAH